

## I CLAIM

1. An aircraft servicing pit comprising:

a subsurface pit enclosure buried beneath a ground surface  
across which aircraft travel while on the ground,

5 a pit lid support having an upper face level with said ground  
surface and located atop said subsurface pit and having an access opening down into  
said pit enclosure surrounded by a lid supporting rim located beneath said upper face, a  
hinge pocket having opposing side walls defined in said pit lid support immediately  
adjacent said lid access opening and said lid supporting rim, and a pair of hinge axle  
10 end slots defined in said lid support on opposing sides of said hinge pocket and  
extending in opposite directions from said opposing hinge pocket side walls, and said  
hinge axle end slots are inclined upwardly and away from said access opening and  
intersect said upper face of said pit lid support,

a pit lid having a body configured to seat upon said lid  
15 supporting rim and thereby close said access opening and having a hinge leaf projecting  
laterally from said body and including a pair of hinge axle ends projecting in opposite  
directions from opposite sides of said hinge leaf so as to extend into said pair of hinge  
axle end slots, and said pit lid is completely removable from said lid support when  
swung open to a disposition beyond perpendicular alignment with said upper face of  
20 said pit lid support and said hinge axle ends are captured in said hinge axle end slots  
when said pit lid is shut to close said access opening.

2. An aircraft servicing pit according to Claim 1 wherein said hinge axle end slots are oriented at an angle of about one hundred twenty degrees relative to said upper face of said lid support.

3. An aircraft servicing pit with a detachable lid and comprising:

a subsurface aircraft servicing pit enclosure buried beneath a ground surface across which aircraft travel during docking and undocking,

a pit lid support disposed atop said subsurface pit and

5 having a flat upper surface level with said ground surface and defining a lid seating ring recessed beneath said flat upper surface, a hinge seating pocket adjacent said lid seating ring including a pair of mutually opposing hinge pocket side walls and a hinge pocket end wall extending therebetween, and inclined hinge axle end receiving slots defined in said flat upper surface of said pit lid support, wherein said hinge axle end receiving  
10 slots reside in mutually coplanar relationship and intersect both said hinge pocket side walls and are inclined downwardly from said flat upper surface and toward said lid seating ring, and

a pit lid configured to seat within the confines of said pit lid support upon said lid seating ring and having a hinge leaf projecting laterally into said  
15 hinge pocket, and hinge axle ends projecting transversely in opposite directions from each other and from said hinge leaf and into said hinge axle end slots, whereby said hinge axle ends are captured in said hinge axle end slots when said pit lid is seated on said seating ring and said pit lid is completely detachable from said lid support when

said pit lid is unseated from said seating ring and rotated back away from said seating ring.

4. An aircraft servicing pit according to Claim 3 wherein said hinge axle end slots are oriented at an obtuse angle of about one hundred twenty degrees relative to said upper face of said lid support.

5. An aircraft service pit lid assembly comprising:

a lid frame having a structure defining a flat upper deck, an access opening encompassed within an upwardly facing peripheral bearing ledge that is lower than and surrounded by said deck, and a hinge leaf pocket formed in said frame structure adjacent said access opening to define a pair of opposing pocket side walls, and a pair of hinge axle end seating slots extending into said deck of said frame structure and through both of said pocket side walls, and said seating slots are in mutually coplanar alignment with each other and extend at an inclination downwardly from said deck and inwardly toward said access opening, and said hinge axle end slots terminate no lower than the level of said bearing ledge;

a pit lid configured to seat atop said bearing ledge within said frame structure;

a hinge leaf projecting from said pit lid and into said hinge leaf pocket and having hinge axle ends that project in opposite directions from said hinge leaf and are engageable in said hinge axle end slots and are captured therein when said pit lid is seated atop said bearing ledge and said hinge axle ends are disengageable from

said hinge axle end slots so as to permit complete detachment of said pit lid from said lid frame when said pit lid is unseated from said bearing ledge.

6. An aircraft service pit lid assembly according to Claim 5 wherein said hinge axle end seating slots are inclined at a an angle of about one hundred twenty degrees.

7. An aircraft service pit lid assembly comprising:

a frame for installation into a surface across which aircraft travel and which defines a pit access opening therethrough entirely within its structure and said access opening is surrounded by a flat horizontal deck and said structure of said frame has a recessed bearing ledge beneath said deck encompassing said access opening and a hinge pocket is formed in said structure of said frame recessed beneath said deck adjacent said access opening and said hinge pocket has mutually opposing, upright pocket side walls extending downwardly from said deck, and a pair of inclined hinge axle end slots are defined in said deck on opposing sides of said hinge pocket, and said hinge axle end slots intersect said deck and said pocket side walls and are inclined downwardly from said deck and toward said access opening and said hinge axle end slots are in coplanar relationship with each other,

a lid having a flat upper surface and formed of a size and shape that fits within the lateral confines of said deck to rest upon said bearing ledge and a hinge leaf projects laterally outwardly from said lid and into said hinge pocket, and

horizontally disposed hinge axle ends extending transversely

from said hinge leaf and beyond said upright pocket side walls and into said hinge axle end slots, thereby forming a horizontal axis of lid rotation relative to said frame that is beneath the level of said deck, and said hinge axle ends are captured in said hinge axle end slots when said lid is lowered to rest upon said bearing ledge, and said hinge axle ends are completely disengageable from said hinge axle end slots when said pit lid is raised to expose said access opening.

8. An aircraft service pit lid assembly according to Claim 7 wherein said hinge axle end seating slots are oriented at an obtuse angle of inclination of about one hundred twenty degrees.